

Upper Roanoke River TMDL Implementation (Clean-up) Plan – Part II Development

Residential and Agricultural Working Group Report to Steering Committee

Presented: March 16, 2016 1:30 p.m.

Blacksburg Library, 200 Miller St. Blacksburg, VA 24060

Working Group Participants: Doug Burton (Montgomery County), Javad Torabinejad, Zach Martin, Joe Williams (Virginia DGIF), Spencer Winfrey, Leigh Anne Weitzenfeld (City of Roanoke), Randy Lease, Robert Trout, Katie Shoemaker (EEE Consulting for VDOT), John Burke (Town of Christiansburg), Shane Sawyer (Roanoke Valley Alleghany Regional Commission), Cynthia Hancock (Skyline Soil & Water Conservation District), Kafi Howard (Town of Blacksburg); Nick Tatalovich, Erin Hagan, Sue Lindstrom, Ginny Snead (Louis Berger Group); Mary Dail, Charlie Lunsford, James Moneymaker (Virginia Department of Environmental Quality [DEQ]) .

Purpose of Working Groups: The Agricultural Working Group concentrated on the following identified problems contributing to excessive sediment and bacteria from agricultural and rural residential areas: lack of streamside vegetation, agricultural runoff, livestock access to streams, failing septic systems and straight pipes, and livestock waste management. The Residential Working Group considered the following identified problems contributing to excessive sediment and bacteria from urban and residential and commercial areas: lack of streamside vegetation, pet waste, stream channel modifications , litter, illicit connections/discharges, pollutant buildup on impervious surfaces, increasing development and peak flows from storm water runoff, and enforcement of erosion and sediment control regulations with residential construction. Both working group meetings were held on the same two dates. During the first meeting (June 16, 2015), the working groups were separate for the discussion portion. Due to low numbers of stakeholders representing each working group at the second round of working group meetings (December 3, 2015), the Residential Working Group and Agricultural Working Group were combined.

Meeting Dates: The Residential and Agricultural Working Groups met on June 16, 2015 at 6:00 p.m. and December 3, 2015 at 6:00 p.m. Both meetings were held at the Meadowbrook Center Community Room in Shawsville, Virginia.

Key Topics and Recommendations

The following is a summary of the issues discussed at the Residential and Agricultural Working Group meetings and their recommendations to the Steering Committee.

On-site sewage disposal systems:

- Alternative systems are becoming more prevalent because there are stricter regulations for the traditional systems.
- Blacksburg requires homeowners to connect to public sewer in cases where a septic system has failed. A homeowner has to be within 400 feet of existing sewer line. Residents typically pay for materials and the town provides the equipment and labor to connect to public sewer.

Pet Waste:

- Citizens are more likely to utilize pet waste stations in a park, but those with pets in a fenced backyard are unlikely to pick up pet waste.

Stormwater:

- The Residential Working group shared some considerations with respect to stormwater BMPs:
 - Some localities in the watershed have the Stormwater utility fees.
 - Roanoke Valley Alleghany Regional Commission (RVARC) is working on a grant application to have funding to distribute rain barrels to people that participate in a workshop.
 - There are areas of severe bank erosion in the watershed. Virginia Tech recently studied and highlighted areas of severe bank erosion; the study was provided to VDGIF. Targeting of these areas would require a site visit.
 - There are places along the North Fork that landowners don't want to do any riparian buffer or stabilization work.
 - Development negatively affects water quality by increasing impervious surfaces and concerns were expressed over stormwater regulations.

Agriculture:

- The group observed the current growth trend for agriculture in the area as follows:
 - There are fewer cropland acres, more sod acres (South Fork Roanoke River), higher concentrations of horses in some areas and fewer beef cattle.
 - Overall there is an increase in the number of non-traditional agricultural operations that are not eligible for USDA and state agricultural cost-share but may be eligible for other grant funds and could benefit from technical assistance through VCE and SWCDs.
 - Bradshaw Creek area, in particular, has a greater concentration of horses. Many residents have just one or two horses.
 - Regarding cropland, more changes have occurred in the South Fork watershed. It was mentioned that fields previously farmed as cropland had more residue than current sod farms. In general, fewer farmers are planting crops.
 - According to Skyline SWCD confined feeding operations have mostly addressed manure management issues.
 - Skyline SWCD reported that there is no manure spreading on cropland in the North Fork Roanoke River, Wilson Creek, and Bradshaw Creek watersheds but was unsure about the South Fork Roanoke River.
 - Very little reforestation occurs in the watershed. It is estimated that less than five percent of cropland is reforested.
- Stream Fencing considerations are as follows:
 - Participants expressed that the stream fencing needed to improve water quality is impractical for some individuals in the watershed. Cost-share programs do not work for every farming operation.
 - Many large farming operations already work with local soil and water conservation districts and understand the benefits.
 - A large percentage of farm land is rented and reaching the owners can be challenging and lease agreement terms may prevent BMP installation.
 - There is some interest as long as stream fencing remains voluntary.
 - Equine-related water quality issues exist, but cost-share isn't usually available for equine water quality issues. There was disagreement among the working group participants regarding establishment of local ordinances to regulate equine.

- Livestock exclusion remains a challenge in this area with narrow river valleys it is difficult for some landowners to fence 35 ft on each side of a stream.

Recommendations to Steering Committee:

- The working groups recommended the following organizations be included in clean-up planning and implementation activities: New River Valley Planning Commission, Land Conservancy, Virginia Department of Health (VDH), Homebuilders association, and Trout Unlimited.
- Showcase existing BMPs related to stormwater so that those interested may meet landowners who have installed BMPs.
- Virginia Tech could be a potential partner for BMP installation and water quality improvement. Another potential partner is the Mountain Valley Charitable Trust. This organization has been involved in funding of charitable ventures such as the YMCA and the thrift shop in Elliston.
- Consider facilitating an offset to stormwater utility fee if a landowner implements a BMP in Blacksburg or Christiansburg.
- Onsite sewage disposal and sewer line connection:
 - There is a need for septic system maintenance education. Usually the recommended cycle for a septic tank pump-out is every five years.
 - A suggestion was to provide information on the importance of septic pump-out with these other materials.
 - Septic and sewer system data may be available via the Public Service Authority (PSA).
 - Prioritize sewer system connections in the watershed that are within Blacksburg town limits for first implementation stage. Blacksburg requires homeowners to connect to public sewer in cases where a septic system has failed. A homeowner has to be within 400 feet of existing sewer line; residents typically pay for materials and the town provides the equipment and labor to connect to public sewer.
- **Pet Waste**
 - Digesters might be used by HOAs or installed at hunt clubs which frequently have kennels for large numbers of hunting dogs. One kennel for pets that is not far from Montgomery County is Gandalf Kennels; educational materials could be concentrated there or at similar places.
 - Estimate pet waste digester numbers based on population.
 - The Plan needs to consider existing pet waste stations and build in cost for maintenance of new pet waste stations.
 - Hotels, kennels, veterinarian offices, animal shelters and restaurants are good options for pet waste station placement.
 - RVARC has mapped existing pet waste stations and is willing to continue that effort on the Montgomery Co. side and share this information.
 - Pet waste educational campaign is needed.
 - Enlist pet stores give out flyers explaining the importance of pet waste pickup and including bags.
 - Campaign should include a discussion of ways to dispose of pet waste such as throwing it in the trash, composting, or flushing it.
 - Pet waste education materials could be include with existing water treatment and other mailings

- **Agriculture**

- The group discussed ways to get the word out about Implementation planning activities and, if applicable, funding sources for agricultural best management practices (BMPs). Advertisements at farmer's markets, the Link Letter newsletter, and partnerships with Virginia Cooperative Extensions were suggested by the group.
- Working group members recommended considering the Mill Creek-Preston Forest subdivision and Virginia Department of Transportation construction projects as potential sources of sediment.
- Participants believe the increase in the number of horses will create more denuded pasture areas.
- Many large farming operations already work with local soil and water conservation districts, have stream exclusion fencing installed and understand the benefits.
- Cost-share programs do not always work for every farming operation.
- Barriers to stream fencing were discussed as follows:
 - Fence maintenance during flood events
 - Topography and the inability to give up prime farm land on limited acreage
 - State and federal programs change each year and many farmers do not know what changes occur
- Areas of interest with respect to manure management BMPs may include the Riner area where there are few small dairies and very few intensive beef operations.

- **Education and Outreach**

- Suggestions from the working groups regarding water quality and BMP outreach:
 - Local newspapers (Roanoke Times)
 - Field days
 - Farm Bureau meetings
 - Young Farmers
 - Pesticide licensing meetings
 - Livestock and Farmers markets
 - Virginia Cooperative Extension
 - Trail riding clubs
 - Channel 109 (Montgomery County cable channel)
 - Local informal gathering of farmers to sell produce and other products (this occurs infrequently at the little convenience store in Elliston/Shawsville)
 - Utility bills (note that some residents just have water bills, so this option may not get to everyone)
 - Ruritan Club
 - Go Fest (Roanoke)
 - Tomato Festival (Shawsville)
 - Isaac Walton League
 - Homeowners associations (HOAs)
 - Developers
 - Home Builders Association, Home Shows

- Need to work on getting stormwater and bacteria water quality issues into the public school curriculum as this could go a long way to modifying behavior. Clean Valley Council's very active role in Roanoke area schools.
- Include septic system maintenance and straight pipe education in the Clean-up Plan:
 - Newsletters (distributed to homeowners' associations, agricultural groups, etc.), mailings, and door hangers would be effective forms of outreach.
- Incentivize outreach by providing an online "exam" where participants would read information about stormwater, proper pet waste disposal, septic system maintenance, etc. After completion of the tutorial and exam, the participant could receive a free pet waste composter, bag holder, or rain barrel.